

# THREATS TO SALMON

## WATER SCARCITY

Drought, population growth, increased water use, and irrigation have depleted water supplies in many regions. Less water makes it difficult, and sometimes impossible, for fish to migrate and spawn.

## BARRIERS TO PASSAGE

Barriers, such as dams, may block their passage and create slow-moving pools that are ideal for predators.

## WARMING WATER

Climate change, dams, and industrial discharge can increase water temperature. Water warmer than 64°F/18°C makes salmon more susceptible to predators, parasites, and disease.

## NATIVE PLANT LOSS

Without native plants, fish are more vulnerable to predation and warming waters. Native plants also provide habitat for the invertebrates that salmon eat.

## RUNOFF

Animal wastes, pesticides, and other pollutants runoff from lawns and farms. Oil, heavy metals, and antifreeze runoff from roads. When they reach rivers and streams, these pollutants kill fish, stunt their growth, and impair their reproduction.

## OVERFISHING AND BYCATCH

Historically, many salmon populations were overfished. Today, endangered and threatened salmon can accidentally be caught by people fishing for other types of fish.

# HOW YOU CAN HELP

## BE WATER WISE

Use less water for cleaning, flushing, and showering; replace your lawn with native, drought-resistant plants and water them early in the day; eat less meat and dairy products; and reuse greywater.

## CONSERVE ELECTRICITY

Turn off lights and electronics when not in use and unplug unused electronics. Using less electricity decreases the demand for dam-generated electricity.

## CUT YOUR CLIMATE CHANGE FOOTPRINT

Rethink and reduce purchases; reuse products and packing before throwing them out; compost and recycle when possible; and bike, bus, and carpool.

## RESTORE HABITAT

Volunteer with your local stream team or green team to plant native species, clean up litter, remove invasive species, and create rain gardens.

## MINIMIZE RUNOFF

Use fewer pesticides, fertilizers, and household chemicals; dispose of pet waste properly; wash your car at commercial car washes; and maintain your vehicles.

## EAT SUSTAINABLE SEAFOOD

Visit [FishWatch.gov](https://www.fishwatch.gov) to learn how to choose seafood with a smaller impact on the environment.

*I'm counting  
on you!*



**Learn what salmon need to  
live, and how you can make a  
difference.**



**NOAA  
FISHERIES**



# NOAA FISHERIES



## 7. SPAWNING ADULTS

When they reach the spawning grounds, they find a mate. Females dig nests in the gravel and lay thousands of eggs that are fertilized by milt. Most salmon die after spawning and their bodies provide food for other wildlife including bald eagles, bears, minks, river otters, and invertebrates.

## 1. EGGS

Under the gravel, thousands of eggs develop in nests called redds.

## 2. ALEVIN

Alevin hatch and remain under the gravel for protection against predators until their yolk sac is fully absorbed.

## 3. FRY

Once alevin have absorbed their yolk, they become fry. They head for protected spots, like under logs and behind boulders. They dart out to catch tiny insects that come their way.

## 4. SMOLTS

When they feel the urge, young salmon begin migrating toward estuaries where they begin adapting to saltwater in a process called smoltification.

## 5. OCEAN ADULTS

Salmon enter the ocean as juveniles and leave it as mature adults. In the ocean, salmon travel thousands of miles and feed on other fish, squid, eels, and shrimp.

## 6. MIGRATING ADULTS

When adults are ready to spawn, they are guided home by the smells of their home stream. Once they reach freshwater, they stop eating and lose their silver color. On their way home, they must battle rapids, waterfalls, dams, and predators. Males develop hooked jaws and sharp canine teeth; some species develop humped backs.

# Salmon Lifecycle

**At every life stage,  
salmon need abundant  
cold, clean water.**

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